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Work overload in relation to civilian life among deactivated reservists

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WORK OVERLOAD IN RELATION TO CIVILIAN LIFE AMONG
DEACTIVATED RESERVISTS

A Thesis

Presented to

The Faculty of the Department of Psychology

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

by

Julie R. Fernandez

December 2004

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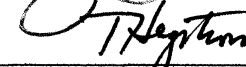
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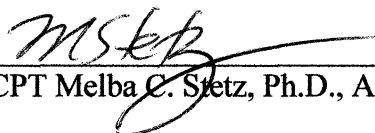
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ABSTRACT

WORK OVERLOAD IN RELATION TO CIVILIAN LIFE AMONG DEACTIVATED RESERVISTS

by Julie R. Fernandez

This study examines whether the relationship between military workload and civilian job satisfaction and marital satisfaction is fully mediated by well-being, work interference with family (WIF), and family interference with work (FIW). The Walter Reed Army Institute of Research gathered survey data from 74 reservists, who returned home from active duty following a domestic peacekeeping mission. Results suggest military workload positively correlates with WIF, FIW, and ill-being, but does not correlate with well-being, civilian job satisfaction, and marital satisfaction. Therefore, a mediated analysis could not be analyzed. Post hoc moderated regression analyses, however, showed that as FIW increased, marital satisfaction increased for people high on well-being, but decreased for those low on well-being, and that as WIF increased, marital satisfaction increased for those high on ill-being and decreased for those low on ill-being.

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INTRODUCTION

Reservists in the US military might be called-up or “activated” by the President at any time. When the country calls a reservist for duty, the individual must comply, regardless of his or her civilian job or (and in most cases) family situation. The toll military workload takes on reservists’ well-being, and civilian job satisfaction, as well as marital satisfaction has rarely been studied before. Based on studies of Israeli military reservists (e.g., Etzion, Eden, & Lapidot, 1998; Westman & Eden, 1997), it appears that being on reserve duty can alleviate stress from civilian employment. However, the Israeli reservists who were studied had short-term duties of about 3-4 weeks. One might question if such respite (i.e., a break from normal activities) of a longer and more uncertain duration would also have an ameliorating relationship with aspects of civilian life? It is conjectured here that it will not, that is, active duty will negatively relate to civilian job satisfaction and marital satisfaction.

Stress relief from civilian employment appears to be a benefit to serving in the Israeli reserves (Etzion et al., 1998). However, whereas in Israel men serve on reserve duty for about four weeks per year until their mid-40s, short reserve duties is not a part of the U.S. military structure. Therefore, perceiving a high level of military workload during a reserve service would likely negatively relate to satisfaction with aspects of civilian life, for example, marital satisfaction and civilian job satisfaction. Moreover, high military workload is expected to negatively correlate with well-being, work interference with family (WIF), and family interference with work (FIW). Well-being, WIF, and FIW is expected to positively correlate with marital and civilian job

satisfaction. Such relationships, like that between workload (a stressor) and low satisfaction with marriage and civilian job (i.e., strains), are generically referred to as occupational stress.

The study of occupational stress (i.e., the relationship between stressors and strains; Jex, Beehr, & Roberts, 1992) among military personnel has been given some scholarly attention (e.g., Bliese & Castro, 2000; Bray, Camlin, Fairbank, Dunteman, & Wheelless, 2001; Figley, 1993; Leiter, Clark, & Durop, 1994). However, most of the research focuses on work-related psychological and behavioral strains, for example, negative psychological and behavioral reactions, such as burnout, low commitment to the organization, low organizational support, post-traumatic stress disorder, and overall psychological well-being (see Bliese & Castro, 2000; Bliese & Halverson, 1998; Leiter et al., 1994; Solomon, Blumenfeld, & Singer, 1995; Stretch, Durand, & Knudson, 1998). Less attention has been given to the extent to which military workload affects marital satisfaction (exceptions include Schumm, Bell, & Gade, 2000; Schumm, Hemesath, Bell, Palmer-Johnson, & Elig, 1996), and civilian job satisfaction among reservists. Stuart and Bliese (1998) conclude that reservists may have it a little more difficult than regular active soldiers as “current life stressors are pervasive for all soldiers, especially those who leave home, employment, school, civilian careers, or families; and who respond to military activation, service, and deployment” (p. 18).

Given that reservists stand to the call of duty when it is needed, it is the government’s responsibility to ensure their easy transition back to civilian life. Military reserves are unique in that they have dual roles in military and civilian work, and

potentially have other roles as a husband or wife, and/or parent. Most military reservists' military jobs are not full time; therefore, it can be an adjustment in job duties to be deployed and an adjustment to being away from family as opposed to working their civilian job and coming home after work. Little to no research has examined the relationship between military workload and perceptions of WIF, FIW, well-being, and their relationship with marital satisfaction and civilian job satisfaction among military reserves. Studying these relationships is an important first step in determining ways to help reservists maintain a positive outlook on their civilian life while deployed. A positive outlook would inevitably ease soldiers' return to civilian life post deployment.

Therefore, the current study's focus is on the relationships between perceived military work overload and both marital and civilian job satisfaction, as mediated by well-being, WIF, and FIW (see Figure 1). Research has shown that work overload negatively relates to job satisfaction (e.g., Bliese & Jex, 2002; Jex & Bliese, 1999; Richardson, & Burke, 1993), marital satisfaction (Leong, Furnham, & Cooper, 1996; Major, Klein, & Ehrhart, 2002), and well-being (e.g., Major, Klein, & Ehrhart, 2002). Moreover, well-being positively relates to job satisfaction (e.g., Coverman, 1989; Lu, 1999) and marital satisfaction (e.g., Bedian, Burke, & Moffett, 1988; Thomas & Ganster, 1995). Therefore, it is expected that increases in workload will negatively relate to well-being, FIW, and WIF, which will be positively related to marital satisfaction and civilian job satisfaction. In other words, it is expected that the relationship between work overload and either work or marital satisfaction will be fully mediated by well-being, WIF, and FIW.

Military reservists put on active duty after September 11, 2001, were surveyed at four points in time, pre-deployment, twice during deployment, and post deployment (three months after deactivation). For the purpose of this research only those who were surveyed three months after deactivation were studied. Responses required reservists to think back to military reserve workload for this fourth survey. Results from the proposed study are expected to enlighten reservists and their families about the realities of military workload on civilian life when called for active duty, so that when having to leave home for duty, the reservists and their families are not surprised by the challenges families might face upon the reservist's return home. It is also expected to provide civilian employers insight about the possible relationship military workload can have on civilian work life.

LITERATURE REVIEW

Background

The study of occupational stress in industrial and organizational (I/O) psychology dates back to at least the 1960s when researchers (e.g., Crampton & Andereg, 1961; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964) began to study role stressors in the workplace. Beisser and Glasser's (1968) research on patients who were first admitted to a state mental hospital suggests that most people's stressors stem from occupational and marital domains. Over the last 45 years, we have learned a great deal about which stressors relate to strains, which variables might or might not moderate or mediate the stressor-strain relationship, and what needs further study (Beehr, Jex, Stacy, & Murray, 2000; Cooke & Roussau, 1984; Hughes & Galinsky, 1994; Jex, Adams, Bachrach, & Sorenson, 2003; Korunka, Scharitzer, Carayons, & Sainfort, 2003). Cooper (2000) emphasizes that the study of work-family balance is scant and more research is needed. One area that needs further study is how work-related stressors affect home life satisfaction in terms of marital satisfaction (Burke, 1986; Burke & Greenglass, 2001; Cooke & Rousseau, 1984; Greenhaus & Beutell, 1985). A second area for further research is the extent to which reported well-being mediates the relationship between work overload and job and marital satisfaction. Generally, the topic of well-being has been studied as an outcome variable, similar to satisfaction (Aryee, Luk, Leung, & Lo, 1999; Kinnunen, Vermulst, Gerris, & Makikangas, 2003; Malka & Chatman, 2003; Pousette & Hanse, 2002). In the present study, well-being is examined as a mediator of the relationships between workload and both civilian job satisfaction and marital

satisfaction, because of evidence that well-being might be affected by stressors (e.g., Aryee et al., 1999; Kinnunen et al., 2003; Malka & Chatman, 2003; Pousette & Hanse, 2002), but also might account for marital and job satisfaction (e.g., Burke, 1986; Burke & Greenglass, 2001; Cooke & Rousseau, 1984; Greenhaus & Beutell, 1985).

The U.S. military has engaged in I/O related research since the days of Walter Dill Scott (Landy, 1997), when the Army Alpha test was devised to conduct personnel assessment of soldiers during WWI. Clinically, much more research has been done; the research has focused mostly on soldiers with post-traumatic stress disorder (e.g., Litz, King, King, Orsillo, & Friedman, 1997; Solomon, 2001; Solomon et al., 1995; Stretch et al., 1998). However, there has been relatively little research pertaining to occupational stress in reservists' military work life from an I/O perspective (Stuart & Bliese, 1998) and civilian work life. Soldiers, like people in any other occupation, are faced with numerous work-related stressors, including work overload. Therefore, it should be expected that stressors will have a similar debilitating effect on various outcomes, such as civilian life satisfaction. It is not known to what extent military stressors, such as military work overload, relate to civilian job and marital satisfaction.

Like business people who must travel for extended periods of time for business purposes, US soldiers must also be away from family for extended periods of time (though the timeframe is often unknown and the call to duty is often last minute). Literature on business sojourners (or international assignees or expatriates) indicates that marital satisfaction decreases when the individual is away from family (Schumm et al., 2000; Shaffer & Harrison, 1998). Roehling and Bultman (2002) found that women with

work related travel experienced lower levels of job satisfaction, whereas men traveling did not report lowered levels of satisfaction. In fact, in studies of male reservists, it was found that job satisfaction increased when away from the civilian worksite, probably because the work presented a relief from job burnout and stress (Etzion et al., 1998; Westman & Etzion, 2001; 2002).

Although business sojourners are not examined in the present study, soldiers who have been deactivated from a military peace keeping mission on US soil are studied. Moreover, unlike the Israeli soldiers in the presented studies who were on their yearly reserve duty for 3-4 weeks, the US reservists in the present study are called for duty when the need arises and in this deployment had a one-year duty.

On the following pages, literature pertaining to each of the study variables is reviewed. First, research and models of work/family balance is provided. Second, literature that examined work overload in relation to work interference with family (WIF) and family interference with work (FIW) and in relation to well-being, job satisfaction, and marital satisfaction is reviewed. Third, well-being is reviewed as a strain (i.e., main effect), as well as a mediator of the stressor-strain relationship. Fourth, literature on job satisfaction and marital satisfaction will be reviewed. These reviews will contribute to the overall understanding of work/family balance issues and the relevance for such a study among Army reservists.

Theories on Work/Family Balance

The most commonly cited definition of work-family conflict states that it is “a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is, participation in the work (family) role is made more difficult by virtue of participation in the family (work) role” (Greenhaus & Beutell, 1985, p.77). It is important to understand work-family balance and how it relates to studies on WIF and FIW as this can be related to job satisfaction and marital problems.

The definition of work-family *balance* is a lack of conflict within family roles and work. There are currently seven theories on work/family balance. In three of them (i.e., segmentation model, congruence model, and identity or integrative model), work life is not expected to affect family life and family life is not expected to affect work life. In the other four theories (i.e., spillover model, compensation model, resource drain model; Frone, 2002; and the cross-over model; Westman & Etzion, 1995), work life is expected to have an impact on family life and family life is expected to have an impact on work life.

Segmentation Model. Segmentation theory posits that work and family represent independent domains that do not influence one another (Morf, 1989, cited in Frone, 2002). For example, if a person was having problems with his or her work life it would have no bearing on his or her family life because the two should not influence one another or have an impact on one another.

Congruency Theory. Congruence theory suggests that although work and family variables show a positive correlation with one another, this may be due to outside factors that make it appear positive (Frone, Russell, & Cooper, 1994, as cited in Frone, 2002). For example, Frone et al. (1994 cited in Frone, 2002) showed that the positive correlation between job and family satisfaction may be due to the fact that both variables result from personality dispositions, such as positive or negative affectivity.

Identity Model. The identity or integrative model indicates that work and family roles are essentially the same. An example of the integrative model is a family-owned and operated business. In this model a family business is tied with family and work; they are dependent on one another.

Spillover Model. The spillover model posits a positive relationship between work and family (Sirgy, Efraty, Siegel, & Lee, 2001), whereby a change in one role leads to a parallel change in another role, such as satisfaction in job and marriage (Rogers & May, 2003). Likewise, problems on the job may also spillover and create problems in marriage. Rogers and May (2003) found evidence of the spillover effect in that an increase in marital satisfaction contributed significantly to increases in global job satisfaction over a 12 year period, whereas marital discord lead to low job satisfaction. In essence, there is a causal relationship between one life role and another role, for example, working on an exciting project at work might create enthusiasm for home life.

Compensation Theory. According to compensation theory, there is a negative relationship between job and family roles. “Increasing dissatisfaction in one life domain (e.g., family) leads to a reduction of time and energy to that role, which then leads to an

increase in time and energy devoted to the second life domain (e.g., work) in an effort to compensate for the lack of rewards or for undesirable experiences in the first life domain (e.g., family)” (Frone, 2002, p. 147). Having a negative experience with family, such as marital problems, might lead one to concentrate his or her time and energy into work to make up for the bad experience at home.

Resource Drain Model. The resource drain model posits a negative relationship between work and family. That is, use of resources, such as time, energy, or attention in one life area (e.g., work) reduces availability of these same resources for use in another life area (e.g., family). For example, if one is spending time with his or her family due to a family member’s health issue then time spent at work might suffer due to more time needed with family. The family and work relationship would be negative in this example where the family resource takes more time away from the work domain (Morf, 1989, cited in Frone, 2002).

Crossover Model. Other research on work-family balance has suggested a model with a more dynamic view on work and family life. Westman and Etzion’s (1995) crossover model demonstrates how one person’s stressors and strains negatively affect his or her partner in the other life domain. In other words, one spouse’s burnout at work would affect the other spouse’s level of strain at home. Bolger, DeLongis, Kessler, and Wethington (1989) present crossover as stress experienced on the job by an individual which leads to stress being experienced by the individual’s spouse at home.

Work Interference with Family. Other theories of work family balance have examined it in terms of work interference with family and family interference with work.

Major et al. (2002), in a study of 513 employees of a Fortune 500 company, found WIF to be significantly, positively related to psychological distress (i.e., depression and stress-related health problems) and mediated the relationship between work time and distress. In other words, the amount of time spent at work affected the extent to which people perceived work as interfering with family life, which further affected reported distress. It was purported that having too much to do on the job and/or experiencing pressure (stressor) from a supervisor to work long hours created so much tension and strain that individuals were unable to accommodate all of their responsibilities at home, regardless of the number of hours they worked (Major et al., 2002). Thus, it is organizations' responsibilities, through policies and practices, to support family needs of its employees in order to reduce work-family conflict (Thomas & Ganster, 1995). In a study of the relationship between supervisor support and job strains conflict, Thomas and Ganster demonstrated that work-family conflict accounted for most of the variance in relation to job strains (e.g., job satisfaction, depression, and somatic complaints).

Hughes and Galinsky (1994) examined the dimensions of work-family interference and how it mediates relationships between job characteristics and marital outcomes. In their study, surveys were distributed to workers at a pharmaceutical company on ten job characteristics, including work-family interference composing of job role difficulty, family role difficulty, and negative mood spillover; and marital quality. "Respondents who reported more job role difficulty, more family role difficulty, and more negative mood spillover were likely to report more tension" (p. 38). Marital tension often resulted from work and family demands that conflict. In particular, Hughes

and Galinsky found that as supervisor support and pressure for performance increased marital tension also increased.

Work and family balance can also be related to stressors and strains. Kirkcaldy (1993) studied job stress and satisfaction among international police officers from the United States, United Kingdom, France, Ireland, Holland, Spain, Finland, and Denmark. He found that whereas for British police officers home and work interface (i.e., relationship between the home and work life) was a stressor, for police officers in the other countries, home and work interface helped one cope with stress, (i.e., support received from home environment, hobbies, and outside interests helped to alleviate job stress).

WIF was positively related to employees' psychological distress and WIF mediated the relationship between work time (hours worked) and distress (Major, et al., 2002). People who worked longer work weeks showed increased depression or other stress-related health problems. Given that work time and WIF were positively related with depression and somatic complaints, it is plausible that these variables would also be related to problems at home, such as marital problems, and problems at work that would manifest themselves as low job satisfaction.

Family Interference with Work. Hughes and Galinsky (1994) found that family role difficulty and job role difficulty were each significantly correlated with WIF and FIW. Their research defined job role difficulty or FIW as the extent to which family roles constrain workers' performance of work-related tasks. Adams and Jex's (1999) study showed that workers who perceived greater control over their time experienced

lower family interference with work and work interference with family. Stretch et al. (1996) found that a source of stressors related to the psychological health of Gulf War-era military personnel were tied to issues related to family and home (e.g., lack of contact with family members was a stressor for 83% of deployed veterans, and to a lesser extent illness or problems at home were claimed to be stressors for 41% of veterans). Burke and Greenglass (2001) also noted that family work-conflict had direct relationships with family satisfaction and psychosomatic symptoms. For example, nurses who experienced greater work-family conflict also reported greater family work-conflict due to increases in workload and workplace threats due to hospital restructuring (Burke & Greenglass, 2001). Perrewé, Hochwater, and Kiewitz (1999) found that there is a negative relationship between family interference with work and job satisfaction, as well that WIF and FIW may have different effects on domain-specific strain. Kinnunen et al. (2003) found that low levels of FIW and high agreeableness (personality as a moderator) were related to high marital satisfaction. A high level of FIW contributed to job exhaustion and a high level of WIF and low emotional stability.

Work Overload

Bliese and Castro (2000) found that military work overload (measured as role overload of job demands) positively related to individual reports of psychological strain (measured in terms of depression) among army soldiers. Similarly, Major et al. (2002) found that increased workload was at least indirectly associated with increased psychological distress for employees at a Fortune 500 company. Bray et al. (2001) found that job functioning was related to stress, depression, substance abuse, and coping styles

among military men and women. Other research also found that increased workload would increase psychological strain (Beehr et al., 2000; Jex & Bliese, 1999; Jex & Thomas, 2003; Major et al., 2002; Pousette & Hanse, 2002). Beehr, Farmer, Glazer, Gudanowski, and Nair (2003) demonstrated that stressors emanating from supervisors, such as workload due to the supervisor (i.e., supervisors' demands for subordinates' to work "fast," more than one can handle, and too much work) negatively correlated with job dissatisfaction among a sample of 270 employees of administrative, customer service, distribution, and management departments in a hospital supply company. Burke and Greenglass (2001) found that nursing staff, working in a community or a hospital, and who experienced increased workloads reported greater work-family conflict and less job satisfaction. Furthermore, workload also indirectly negatively related to marital satisfaction (Mauno & Kinnunen, 1999). Jex and Thomas (2003) corroborate that increased military workload (i.e., average number of hours worked per day) was found to decrease both job satisfaction and well-being among military personnel.

Despite a clear relationship between military workload and military job satisfaction, there is evidence indicating that time away from civilian jobs, such as a respite through military reserve duty can also be a time of diminished perceptions of stressful civilian job demands (Westman, & Eden, 1997). Etzion et al. (1998) proposed that reserve service could serve as a respite from civilian work stressors and burnout on the job as it provides a temporary relief from work by having a change of venue, and change and detachment from the normal work routine. In fact, reservists returning to work perceived diminished job stressors and burnout while a control group who had

remained at their job reported no change (Etzion et al., 1998). Thus, respite from work can relieve stress from work (Eden, 1990; Etzion et al., 1998; Strauss-Blasche, Ekmekcioglu, & Marktl, 2002; Westman, & Eden, 1997).

Well-Being

Well-being can be studied as a mediator of the relationship between workload and both civilian job satisfaction and marital satisfaction. Burke and Greenglass (2001) showed that psychosomatic symptoms were positively correlated with FIW conflict and negatively correlated with job satisfaction. Thomas and Ganster (1995) found that supervisor behaviors that are seen to be supportive of non-work demands (e.g., allowing changes in shifts to accommodate family life activities) positively related to job satisfaction and positive health outcomes. However, having work overload or experiencing work pressure from a supervisor creates tension and strain, such that individuals are unable to accommodate all of their responsibilities at home regardless of the number of hours they work (Major et al., 2002). In other words, the perceived pressure (or intensity) of work and not the number of hours worked related to tension among 513 employees of a Fortune 500 Company.

Job Satisfaction

Stressful work can have a huge impact on job satisfaction. For instance, in a study of female Canadian physicians (Richardson & Burke, 1993), it was found that hours worked negatively related to overall job satisfaction. Burke and Greenglass (2001) showed that job satisfaction and family satisfaction were not correlated, although an increase in workload was significantly related to lower global job satisfaction. Violanti

and Aron (1993) found this to be especially true when police officers reported poorer health (i.e., feelings of depression, fear, loneliness and, sadness) on the job. Nonetheless, there are studies (e.g., Kirkcaldy, 1993) that have shown that despite high interpersonal job stress (i.e., with the organizational structure and climate, work and home interface, and relations with others) for international police officers, satisfaction with the job remained high. Similarly, Leong et al. (1996) did not find a significant relationship between work stress and job satisfaction in a sample of 106 professional and administrative officers of middle management level in a public sector organization.

Marital Satisfaction

Marital satisfaction has been found to be greater when couples have a higher level of perceived equality in social roles, including spousal communication, division of family roles, decision-making patterns, and emotional support from the spouse (Kulik, 2002). Strength and cohesion of a marriage was found to be associated with the presence or absence of excessive working on the part of one spouse (Robinson, Flowers, & Carroll, 2001). Other research (Bedian et al., 1988) has shown that work-related role stress is indirectly related to marital satisfaction through work-family conflict.

However, Schumm et al. (1996) found that for soldiers who had participated in Desert Storm, marital satisfaction was neutral (did not change from during deployment to after deployment) among couples who remained married for at least 18 months after the conflict was over, even if they had thought their marriage was in trouble before the war. Apparently, separation from one's partner during deployment moderately reduces satisfaction in a marriage, but might not reduce the quality of the marriage (Schumm,

Bell, & Gade, 2000). In Schumm et al.'s (2000) study, soldiers who were deployed during a peacekeeping mission reported a decrease in marital satisfaction from before joining the unit (pre-deployment) to after joining it (post-deployment). Note that marital satisfaction was measured by a single question, which asked the soldier to rate his or her marital relationship at the present time as 1, 'very unhappy,' to 5, 'very happy.' Schumm et al. (2000) also conducted a further analysis on the reserve component personnel only. Of the 79 reservists who were married prior to deployment, 65 (83%) were married after deployment (of the 65 who were married, 62 of the reservists were married to the same partners). Among the 62 who were married to the same partners, 13 reported marital troubles, desire for divorce, or actual filing for divorce. Schumm et al. conceded that marital instability in the military is a pre-existing condition rather than an effect of military deployment, as comparisons of pre and post-deployment data on marital relationships do not show significant differences.

In terms of marital separation, Roehling and Bultman (2002) found that among women, work-related travel was negatively related to marital quality. Women reported lower levels of marital satisfaction when they spent more time traveling for work. However, work-related travel did not significantly relate to men's reports of marital quality. For men and women with traditional gender role attitudes, travel was associated with stable or higher levels of marital satisfaction when the husband, as opposed to the wife, traveled for work. The present study examines marital satisfaction of U.S. reservists after deactivation from reserve duty. It will be of interest to find out if marital

satisfaction is affected by work (military) in terms of the time away from home and family life during a peacekeeping mission stationed on US soil.

Military Reserve Leave

Although research on the relationship between work and family, when the jobs are routine, is limited, the relationship between non-typical work, such as military reserve duty, and family life, when someone is on a long leave due to work, is sparse. Figley (1993) found that war-related stressors affected families during various strategic points in the Persian Gulf War, including deployment, during the war, homecoming and reintegration, and long-term reactions. Families report intense stressors (e.g., disruption in life issues and imagined danger) when separated from their loved ones who are serving for unknown and extended periods of time, but it can be more stressful when reintegrating, because the soldier must readjust to changes in family structure, day to day tasks, criticism over lack of contact with them when gone, family rearrangement (reorganization of family roles), shifts in social support networks, jealousy regarding extramarital affairs real or potential, and disappointments over each person's homecoming fantasies (Hunter, 1983 as cited in Figley, 1993).

Current Study Summary

The present study examines psychological well being, WIF, and FIW as mediators of the relationship between military workload (as perceived after deactivation) and civilian job and marital satisfaction (also after deactivation) among military reservists who were called to duty for homeland security and who left their civilian jobs for deployment. Variables included in the present study are military work overload, work

interference with family (WIF), family interference with work (FIW), well-being, marital satisfaction, and civilian job satisfaction. Based on the above literature review, four hypotheses are posed. These hypotheses relate, in particular, to spillover, compensation, and resource drain theory. These are the foundations that might explain the proposed relationships among workload, WIF, FIW, well-being, and marital and civilian job satisfaction.

Hypotheses

Hypothesis 1: As military workload increases, marital satisfaction and civilian job satisfaction will also decrease.

Hypothesis 2: As military workload increases, perceptions of WIF will also increase, but well-being will decrease.

Hypothesis 3:

- a) Well-being will positively relate to marital satisfaction and civilian job satisfaction.
- b) WIF and FIW will negatively relate to marital satisfaction and civilian job satisfaction.

Hypothesis 4: The relationship between military workload and both marital and civilian job satisfaction will be fully mediated by well-being, work interference with family, and family interference with work (see Figure 1).

METHOD

Sample

Data for this study were collected from 74 reservists serving in two units from the US Army National Guard soldiers who were deployed to the Pentagon as part of Operation Homeland Defense. Survey data collected 3 months after deactivation from active military reserve duty in 2002 are utilized. The sample was predominantly male (90.1 percent, $n = 64$); three respondents chose not to indicate sex. Slightly over 68 percent (68.1%) of the sample was Caucasian; 22 percent was African American, and almost 9.7% percent were of other ethnicities. The average age was 31.6 years ($SD = 8.4$), ranging from 20 to 58 years of age. Of those seventy-four reservists, 30 (41.7%) were single, 35 (48.6%) were married, one 1.4% was legally separated, 5 divorced (6.9%), and 1 (1.4%) answered "Other." Reservists who had listed their type of civilian employment primarily worked in law enforcement/protective services ($n = 23$, 42.6%). Ninety-six percent of reservists were enlisted and four percent were officers.

The final data set included 74 respondents from two National Guard units. The investigators from the Walter Reed Army Institute of Research explained to the participants that the purpose of the study was to assess the impact of workload (including work hours, training exercises, and military deployments) on soldiers' health. Participation was voluntary and the overall response rate was 100 percent from these two units. Signed informed consent was obtained from all participants.

Measures

Workload. Military workload was measured by four items on a 5-point Likert-type scale. The measure was adapted from the Michigan organizational assessment questionnaire and modified to include the word “military” (Cammann, Fichman, Jenkins, & Klesh, 1983). Three items (*See Workload items 1, 3, and 4 in Appendix A*) in the workload scale were modified. The original items were “I have too much work to do to do everything well,” “I never seem to have enough time to get everything done” and “The amount of work I am asked to do is fair” (p. 96). Items were modified because they did not refer to a military job and items could be misconstrued or interpreted to answer based on the reservist’s civilian job. A higher score represents increased workload. Coefficient alpha for this scale was .90.

General Health (*See Appendix A, Well-Being items 1-12*). Twelve items from Goldberg’s (1978) General Health Questionnaire were used in the survey. However, item 5, used the word “strain,” in a manner that could be ambiguous to respondents (see Appendix A; Jex et al., 1992). The average score for the remaining 11 items are supposed to yield a general health index. However, the reliability was moderately low ($\alpha = .63$). Therefore, exploratory factor analysis was performed allowing items to load on factors with eigen values over 1. This yielded four components, however even the reliability analyses of two components (with more than three items loading on them) were low. As a result, a factor analysis constraining to two factors resulted in elimination of one more item (item 7, see Appendix A). Of the two factors, one appeared to deal with ill-being and the other with well-being. The ill-being scale ($\alpha = .82$) was comprised

of items related to worry, depression, loss of confidence, worthlessness, inability to overcome difficulties, and loss of sleep, whereas the well-being scale ($\alpha = .72$) was comprised of items pertaining to abilities to overcome difficulties, feelings of happiness, capable of making decisions, facing problems, and being able to concentrate. The correlation between the two scales was not significant. Therefore, these two factors seem to be assessing two distinct components for these soldiers. Response options were on a 4-point scale that ranged from 1 (not at all) to 4 (a lot more than usual). A higher score represented greater well-being for items 1, 3, 4, 8, and 12 and greater ill-being for items 2, 6, 9, 10, and 11.

Work Interference with Family (See Appendix A, WIF items 1-4) and Family Interference with Work (See Appendix A, FIW items 1-5). WIF and FIW questions were taken from Netemeyer, Boles, and McMurrian's (1996) scale on work-family conflict and family-work conflict scales. WIF consisted of four items that were modified to reflect military work.

FIW consisted of five items. These items focused on family or partner interference with regard to work related activities though military work was not specified. All nine items, for both WIF and FIW, response options ranged from 1 (strongly disagree) to 5 (strongly agree). A higher score represented more interference from either work or family respectively. Cronbach alpha reliability estimates for both scales were .95 for WIF and .94 for FIW.

Marital satisfaction (See Appendix A, Marital Satisfaction items 1-8).

Questionnaire data assessing marital satisfaction were all developed at the Walter Reed

Army Institute of Research. Marital satisfaction was assessed by eight items on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores represented more satisfaction. Coefficient alpha for this scale was .96.

Civilian Job Satisfaction (*See Appendix A, Civilian Job Satisfaction items 1-3*).

Civilian job satisfaction was based on three questions developed at the Walter Reed Army Institute of Research ranging from 1 (strongly disagree) to 5 (strongly agree). A higher score indicated more satisfaction. Coefficient alpha for this scale was .93.

Procedure

This study was conducted under a protocol approved by the Walter Reed Army Institute of Research. All soldiers were eligible for enrollment. Researchers informed soldiers that their participation was voluntary and obtained written informed consent.

RESULTS

Means, standard deviations, correlations, and reliabilities are presented in Table 1. Correlations coefficients among the variables were examined first (see Table 1). Hypothesis 1 was not supported; military workload did not significantly correlate with marital and civilian job satisfaction. Hypothesis 2 was partially supported. With increased military workload, work interference with family (WIF) also increased ($r = .59$, $p < .01$). Increased military workload was not significantly correlated with well-being, but it was significantly correlated with ill-being ($r = .26$, $p < .05$).

Hypothesis 3a, in which it was posited that well-being and both marital and civilian job satisfaction would be positively related, was not supported. Also, hypothesis

3b, in which it was expected that WIF and FIW would relate negatively with marital and civilian job satisfaction, was not supported.

Hypothesis 4 asserted that WIF, FIW, and well-being would mediate the relationship between military workload and both marital and civilian job satisfaction. However, because the correlation between workload and both marital and civilian job satisfaction were not significant, testing for mediation of WIF, FIW, or well-being was obsolete.

Although mediated analyses could not be conducted, literature (e.g., Major et al., 2002) does indicate that there should be some predictive relationships between the predictor and mediator variables with the outcome variables in this study. Therefore, exploratory moderated regression analyses were conducted. Of the numerous combinations that FIW, WIF, ill-being, well-being, and workload could interact with each other (looking only at two-way interactions), two yielded significant interactions which increased variance in marital satisfaction. First, marital satisfaction was regressed on well-being ($\beta = .22$) and FIW ($\beta = -.07$), but neither of those main effects alone or together were significant. However, the interaction term between FIW and well-being was significant ($\beta = 1.51, p < .05$). The regression showed that as FIW increased, marital satisfaction increased for people high on well-being, whereas the relationship decreased for people who were low on well-being. The other way around, one could also say that as well-being increased marital satisfaction increased for those high on FIW, but decreased for those low on FIW. Second, neither ill-being ($\beta = .00$) nor WIF ($\beta = -.23$) accounted for independent significant variance in marital satisfaction, but together the

interaction was significant ($\beta = 1.28, p < .01$). It was found that as ill-being increased, marital satisfaction decreased for people reporting low levels of WIF, but marital satisfaction increased for people high on WIF. One could also look at it from another perspective, that is, as WIF increased marital satisfaction increased for those reporting ill-being, but decreased for those low on ill-being. Thus, it appears that well-being and ill-being are important factors to consider when studying work and marital satisfaction.

DISCUSSION

The present study investigated the relationships between workload, WIF, FIW, well-being, ill-being, marital satisfaction and job satisfaction. Although numerous researchers (e.g., Frone, 2002; Hughes & Galinsky, 1994; and Thomas & Ganster, 1995) have studied workload's effects on marital and job satisfaction, there has been little to no research addressing one's military workload and how that can affect one's other life areas, such as marital satisfaction and civilian job satisfaction.

The results showed that military workload positively correlated with both WIF and FIW as well as ill-being. Similar results were also found by Bliese and Castro (2001), Burke and Greenglass (2001), Hughes and Galinsky (1994), and Major et al. (2002). Burke and Greenglass (2001) showed that increases in WIF and FIW were due to increases in workload among nurses. As expected, when perceived workload increased, WIF increased. Hughes and Galinsky (1994) even showed that increases in work hours lead to more reports of WIF. Unlike the current study results, Perrewé et al.'s (1999) research found that both WIF and FIW negatively related to job satisfaction. Perrewé et al. also suggested that WIF and FIW might have differential effects on psychological strain (e.g., life satisfaction). Their results echo the current research results as the interaction between WIF and ill-being, as well as the interaction between FIW and well-being helped to explain when marital satisfaction would be increased or decreased. Bliese and Castro (2000) and Major et al. (2002) found that increased workload was positively correlated to psychological distress and thus may be associated with increased depression.

Similar to Schumm et al. (2000), it was found here that reserve duty/military workload does not correlate with marital satisfaction. It is possible that poor marital conditions were a pre-existing factor before activation or being on US soil had ameliorating effects on perceived marital satisfaction. That is, it is speculated that reservists might have felt fortunate to not be sent abroad and were grateful for their marital partners.

Contrary to expectations, well-being was not related to civilian job satisfaction, nor did WIF or FIW correlate with marital satisfaction and civilian job satisfaction. Low job satisfaction and marital satisfaction might stem from numerous stressors. Ill-being, however, was positively related to FIW, but again not related to civilian job satisfaction and marital satisfaction. One explanation for the positive correlation between FIW and ill-being might be that reservists who returned from deployment had difficulty balancing work and family, therefore ill-health develops as one puts family in second place after work responsibilities. This is similar to compensation theory where one will spend time in one area (work) and less time in another life area (family). This might also explain Mauno and Kinnunen's (1999) research in which it was found that increased psychosomatic symptoms (ill-being) decreased marital satisfaction. In the current research, that workload, FIW, WIF, and health did not relate to marital satisfaction might be explained by Roehling and Bultman's (2002) research which showed that marital satisfaction has no impact when men travel for work as opposed to women who travel for work. The sample in this study consisted mainly of men (over 90%). Whereas women bear much of the domestic duties at home, it could be more stressful for women to travel

for work and be gone from the home and family. It may be of interest to study women reservists in comparison to men, utilizing these study variables, and test whether women's (in comparison to men's) job and marital satisfaction decreased with increased military workload.

Moreover, Etzion et al., (1998), asserted that respite from civilian and family life when engaging in military work duty would help to increase marital satisfaction, the current study does not show this. It is plausible that there was not real respite from family life, because soldiers were given opportunities to see visitors, and to communicate regularly with family and friends. Nonetheless, it was found that high work interference with family yielded greater marital satisfaction for those who had greater ill-being. At the same time, this conclusion is weak at best, given that marital satisfaction increased as well-being increased among those indicating that family interferes with work.

Segmentation theory purports that work and family are independent domains. However, through moderated analysis, one can test if there is an interaction between them. As seen in the current study, there were some significant interactions between FIW and well-being, as well as WIF and ill-being in explaining additional variance in marital satisfaction. Nonetheless, job satisfaction appears to still be a separate domain from marital satisfaction, as none of the two-way interactions between WIF, FIW, well-being, ill-being, and/or workload yielded more variance in job satisfaction. The present study shows that how healthy one is or is not and his or her perception of family interference with work and work interference with family might affect marital satisfaction.

Compensation theory might also be relevant in this study; although civilian job satisfaction and marital satisfaction were not correlated with military workload, exploratory moderated regression analysis results suggested that when family life is emphasized and interferes with work life, marital satisfaction increases for people with good health (well-being). Of interest when work is emphasized and interferes with family life, marital satisfaction increases for those who are in poor health (ill-being). It is possible that when work interferes with family, one compensates to spend more time with one's family especially when they are poor in health than concentrate more on work.

Other research has shown that there is no spillover effect with job satisfaction on marital satisfaction, yet marital satisfaction is more predictive of job satisfaction (Mauno & Kinnunen, 1999; Rogers & May, 2003). Although the current study does not support this conclusion, the exploratory research demonstrates that marital satisfaction increases for people reporting increases in well-being, but WIF and marital satisfaction increases when people report increased in ill-being.

Although the main point of this study was to examine a mediated analysis in which health (well-being or ill-being), WIF, and FIW would mediate the workload-satisfaction (marital and civilian job) relationship, there was no support. Exploratory analyses, however, yielded promising results that should be further investigated with *a priori* hypotheses. Also, given that WIF and FIW were positively correlated with military workload, it is plausible that military job satisfaction might be more appropriate to study rather than civilian job satisfaction.

Limitations and Future Research

First, the present study's sample was small ($n=74$); a larger sample might have produced significant results related to marital and job satisfaction. The current study had weak statistical power, as the sample size was small. A sample size of 84 is the minimum number to detect significant relationships at $p < .05$. Second, well-being items were asked in relation to the last two weeks and taking into account after the reservists were back at their civilian jobs, thus well-being items did not relate to military workload when reservists were already deactivated from their peacekeeping mission. Aftereffects from deployment might have already subsided by the time data for the current study were collected.

Third, unlike Jex and Thomas (2003), military job satisfaction was not examined. It would be interesting to learn reservists' satisfaction with their military reserve job once they are activated on duty and away from their home life and civilian job. Fifth, the sample was taken from reservists serving on domestic reserve duty on homeland security mission as opposed to engaging in war on foreign soil. It would be interesting to do the same study based on a foreign deployment.

Fourth, this study utilizes the same source to provide responses on perceptions that occurred during deployment and current health and satisfaction. Longitudinal research would yield stronger implications for the study's results. More research on this topic is needed with a larger sample of military reservists who respond to surveys regarding military workload while on duty and to marital satisfaction and civilian job

satisfaction prior to and after duty. In other words, longitudinal research on this topic is needed.

Although civilian job satisfaction and marital satisfaction do not appear to be related to military workload, it might be of interest to find out what other types of military stressors affect marital and civilian job satisfaction, if any. Moreover, data from multiple sources would be desirable, for example, it would be interesting to learn how the reservists' spouses respond to questions about marital satisfaction, WIF, and FIW. Such research would provide evidence of the military's care for reservists' family life, who are also, by default, giving of themselves for the sake of military reserve missions.

As one can see from the exploratory analysis, reservists who are in good health may be able to cope more from family-work interferences more than one who is in ill-health. The reservists in good health might see family-conflict as positive interactions as it may have them focused more on family life than work. WIF and marital satisfaction increased with increased ill-being. The reservists who were deployed could have strong marriages, as when they have work interference with family and they are ill as they still perceive their marriage as satisfying. The current research might be similar to Schumm et al. (2000) in which marriage conditions were pre-existing factors before military deployment.

This research provides insight into reservists' short-term peacekeeping missions and how this affects one's civilian life after deactivation. Overall, the study shows that reserve duty does not impair one's marriage and civilian job satisfaction. It is of great interest to study reservists as more soldiers may be activated for long term duty and

overseas deployment missions.

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Appendix A

Survey Question Items

Military Workload Items:

1. I have so much work to do in the military, I cannot do everything well.
2. I never seem to have enough time to get everything done.
3. My military job leaves me with little time to get things done.
4. My workload on my military job is heavier than it was before the activation.

General Health Items: Over the last two weeks, how often have you been bothered by any of the following problems? (** indicates variables that relate to ill-health).

1. Been able to concentrate on whatever you are doing?
2. Lost much sleep over worry? **
3. Felt that you are playing a useful part in things?
4. Felt capable of making decisions about things?
5. Felt constantly under strain?
6. Felt that you couldn't overcome your difficulties? **
7. Been able to enjoy your normal day-to-day activities?
8. Been able to face up to your problems?
9. Been feeling unhappy and depressed? **
10. Been losing confidence in yourself? **
11. Been thinking of yourself as a worthless person? **
12. Been feeling reasonable[sp] happy, all things considered?

Note: Items 5 and 7 were eliminated from aggregated variables.

Work Interference with Family Items:

1. The demands of my current military work interfere with my home and family life.
2. Currently, the amount of time my military job takes up makes it difficult to fulfill family responsibilities.
3. Things I want to do at home do not get done because of the demands my current military job puts on me.
4. My current military job produces strain that makes it difficult to fulfill family duties.

Family Interference with Work Items:

1. The demands of my family or spouse/partner interfere with work-related activities.
2. I have to put off doing things at work because of demands on my time at home.
3. Things I want to do at work don't get done because of the demands of my family or spouse/partner.
4. My home life interferes with my responsibilities at work such as getting to work on time, accomplishing daily tasks, and working overtime.
5. Family-related strain interferes with my ability to perform job-related duties.

Marital Satisfaction Items:

1. I have a good marriage.
2. My relationship with my spouse is very stable.
3. Our marriage is very strong.
4. My relationship with my spouse makes me happy.

5. I really feel like a part of a team with my spouse.
6. My spouse was able to effectively manage the household while I was away.
7. I am very satisfied with my family life.
8. I am satisfied with my roles at home.

Civilian Job Satisfaction Items:

1. I am very satisfied with my civilian job.
2. I am satisfied with the kind of work I do in my civilian job.
3. I like my civilian job.

APPENDIX B

Table 1

Means, Standard Deviations, and Correlations Among Stressors, Strains, and Workload

Variable	N	M	SD	1	2	3	4	5	6	7
1 Military Workload	73	2.55	0.86							
2 Well-being	73	2.13	.56	.18						
3 Ill-being	69	1.69	.58	.26*	.16					
4 WIF	73	2.88	.93	.59**	.09	.14				
5 FIW	73	2.55	.73	.47**	-.02	.35**	.56**			
6 Marital Satisfaction	41	3.77	1.06	.09	.19	-.04	-.29	-.11		
7 Civilian Job Satisfaction	71	3.62	1.11	-.10	-.08	-.16	-.04	.03	.04	

* $p < .05$.** $p < .01$.

APPENDIX C

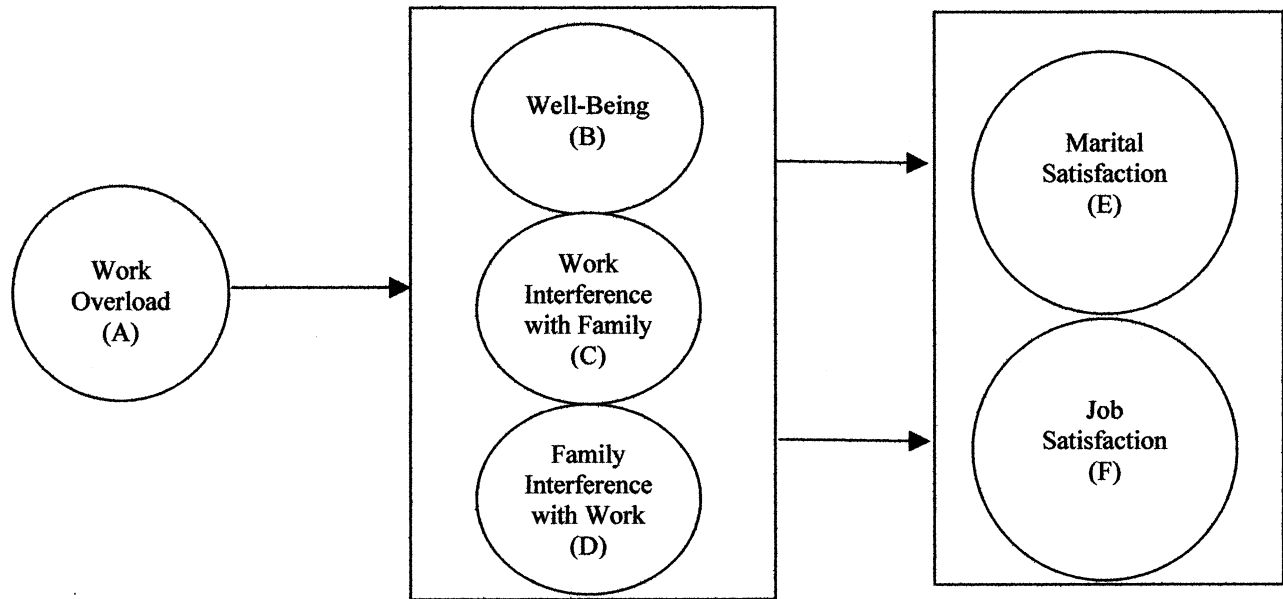


Figure 1. Study Model of Military Workload and Civilian Job and Marital Satisfaction as Mediated by Well-being and WIF and FIW.

APPENDIX D

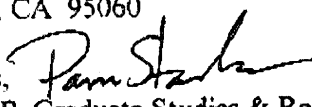
Internal Review Board Letter

**San José State
UNIVERSITY**

**Office of the Academic
Vice President
Academic Vice President
Graduate Studies and Research**

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To: Julie (Falk) Fernandez
420 Market Street
Santa Cruz, CA 95060

From: Pam Stacks, 
Interim AVP, Graduate Studies & Research

Date: September 15, 2004

The Human Subjects-Institutional Review Board has approved your request for exemption from human subjects review under category "A" in the study entitled:

"Military Overload in Relation to Civilian Life among Deactivated Army Reservists."

This approval is contingent upon the subjects participating in your research project or the subject's data collected for the research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project and concerning all data that may be collected from the subjects. The Board's approval includes continued monitoring of your research to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must immediately notify Pam Stacks, Ph.D. Injury includes but is not limited to bodily harm, psychological trauma, and release of potentially damaging personal information.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services that the subject is receiving or will receive at the institution in which the research is being conducted. This approval is granted for a one-year period and data collection beyond September 15, 2005 requires an extension request.

If you have any questions, please contact me at (408) 924-2480.

cc: Dr. Sharon Glazer

The California State University:
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Dominguez Hills, Fresno, Fullerton,
Hayward, Humboldt, Long Beach,
Los Angeles, Maritime Academy,
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